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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/051,608	01/17/2002	John G. McCann	102-492 (P-5306)	1140

7590 06/16/2004

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EXAMINER

TRAN, THAO T

ART UNIT	PAPER NUMBER
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1711

DATE MAILED: 06/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/051,608

**Applicant(s)**

MCCANN ET AL.

**Examiner**

Thao T. Tran

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☒ Claim(s) 11-13 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Response to Amendment***

1. This is in response to the Amendments received on March 29, 2004. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office Action.
2. Claims 1-13 are currently pending in this application. Claims 9-13 have been newly added. Claims 1, 6-7 have been amended.

### ***Claim Rejections - 35 USC § 112***

3. In view of the prior Office action of January 9, 2004, the rejection of claims 1-8 under 35 U.S.C. 112, second paragraph, has been withdrawn due to the Amendments made thereto.

### ***Claim Rejections - 35 USC § 103***

4. In view of the prior Office action of January 9, 2004, the rejection of claims 1 and 4-5, under 35 U.S.C. 103(a) as being unpatentable over Okuda et al. (US Pat. 6,270,866) in view of Blackwelder (US Pat. 5,753,326), has been withdrawn due to the Amendments made thereto.
5. Claims 1-7 and 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 56-045190, in view of Blackwelder (US Pat. 5,753,326) and Okuda et al. (US Pat. 6,270,866).

JP '190 teaches a centrifuge tube (test tube) comprising polystyrene or styrene-butadiene rubber (see abstract).

In regards to claims 1, 3, 6-7, and 9-10, JP '190 does not specifically teach the centrifuge tube comprising a combination of polystyrene and styrene-butadiene. However, it would have

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been obvious to one of ordinary skill in the art, at the time the invention was made, to have combined two compositions for use of the same purpose, in order to form a third composition to be used for the same purpose. See MPEP 2144.06.

JP '190 is silent with respect to the specific weight percent and melt flow index of polystyrene and styrene-butadiene rubber.

Okuda teaches a tube, comprising 33% polystyrene and styrene-butadiene having a melt index of 0.5 to 10 (see col. 4, ln. 64-67; col. 10, ln. 37-38).

Okuda further teaches that this composition would exhibit suitable shrinking properties at low temperature and improve impact resistance (see col. 5, ln. 67, bridging col. 6, ln.2).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have employed the amount of polystyrene and the styrene-butadiene having the melt index, taught by Okuda, in the centrifuge tube of JP '190, for the purpose of improving impact strength and melt strength.

Neither JP '190 nor Okuda teaches the melt index of polystyrene.

Blackwelder teaches a tube, comprising a blend of polystyrene having a melt flow index of around 8-10 g/10 min and a styrene butadiene block copolymer (see abstract; col. 2, ln. 56-58; col. 3, ln. 36-41).

Blackwelder further teaches that the use of polystyrene having a melt flow index of around 8-10 g/10 min would reduce hazing and hence improve clarity of the product (see col. 4, ln. 50-52). Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have employed the polystyrene, taught by Blackwelder, in the blend of the JP '190 combination, for the purpose of improving clarity of the centrifuge tube.

In regards to claim 2, JP '190 teaches a test tube, hence its bottom would inherently be a round bottom.

In regards to claims 4-5, since the sterilization with gamma radiation does not change the composition of the tube, the tube taught by JP '190 would meet the requirement of the claims.

6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP '190, Okuda, and Blackwelder as applied to claim 1 above, and further in view of Metcoff (US Pat. 4,818,516).

JP '190, Okuda, and Blackwelder as set forth in claim 1 above and incorporated herein.

The JP '190 combination does not teach the centrifuge tube having a hermetically sealed closure.

Metcoff teaches the use of a polystyrene centrifuge tube having a cap (see col. 3, ln. 18-19). Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have employed the cap, as taught by Metcoff, to hermetically seal the centrifuge tube of JP '190. This is because the use of a cap would keep the content inside and also to prevent the interior of the tube being contaminated by the environment.

#### *Allowable Subject Matter*

7. Claims 11-13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter: no prior art has been found to teach, disclose, or fairly suggest a medical tube comprising sidewalls

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and a closed end; wherein the sidewalls and closed end consist essentially of a blend of 25-35 weight percent polystyrene, having a melt flow index of 7-11 g/10 min and 75-65 weight percent of styrene-butadiene rubber block copolymer, having a melt flow index of 10-12 g/10 min; in combination with all of the other limitations of claims 1 and 11.

***Response to Arguments***

9. Applicant's arguments filed on March 29, 2004 have been fully considered but they are not persuasive.

On page 7, 1<sup>st</sup> paragraph, of the Remarks, Applicants contend that Okuda does not select a tube comprising 33% PS and 67% S-Bu copolymer, but rather a 33% PS and 67% S-Bu copolymer is at best within a range of copolymers of Okuda. However, what Okuda teaches is still within the range.

With respect to the remark that the Okuda being used to improve impact resistance of a film would be out of context, that it may not mean the same thing as improving impact resistance of a structural material. However, since the composition taught by Okuda appears to be the same and the constituents are identical in the ranges contemplated, the inherent properties of the resin would not be changed or affected unless these parameters were changed. Since they were not, it stands to reason that the properties are also identical.

***Conclusion***

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thao T. Tran whose telephone number is 571-272-1080. The examiner can normally be reached on Monday-Friday, from 8:30 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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June 10, 2004



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